

WHAT IS CLAIMED IS:

1. A force-applying input device comprising:
an operating unit;
5 a position sensor which detects the operational state of the operating unit and outputs a position signal;
an actuator which applies an external force to the operating unit; and
a controller which outputs an actuator drive signal on
10 the basis of the position signal to control the actuator,
wherein the controller calculates a current position and a current speed of the operating unit on the basis of the position signal and determines a first component of the actuator drive signal, the first component corresponding to
15 the current position, by multiplying the sum of the current position and the product of the current speed and a coefficient by an elastic modulus.
2. A force-applying input device according to Claim 1,
20 wherein the controller calculates the actuator drive signal by adding the first component of the actuator drive signal and a second component of the actuator drive signal, the second component corresponding to the current speed and being determined by multiplying the current speed by a coefficient
25 of viscous friction.
3. A force-applying input device comprising:
an operating unit;

a position sensor which detects the operational state of the operating unit and outputs a position signal;

an actuator which applies an external force to the operating unit; and

5 a controller which outputs an actuator drive signal on the basis of the position signal to control the actuator,

wherein the controller calculates a current position and a current speed of the operating unit on the basis of the position signal, determines a first component of the actuator
10 drive signal, the first component corresponding to the current position, by multiplying the current position by an elastic modulus and a second component of the actuator drive signal, the second component corresponding to the current speed, by multiplying the sum of a coefficient of viscous
15 friction and the product of the elastic modulus and a coefficient by the current speed, and calculates the actuator drive signal by adding the first component and the second component of the actuator drive signal.